Getting Back on the Grid

Project Overview

A large energy client was embarking on a critical generational transformation initiative that would bring renewables and short-term battery-based energy storage to their offering portfolio and the market mainstream. As part of the effort, the client needed to upgrade major portions of the distribution grid infrastructure. New offerings and extensive infrastructure upgrades provided opportunity for the client to improve upon grid and distribution outages while gaining customer and consumption insights from the field.

Concord was engaged to provide expertise and delivery capability in the realms of security architecture, data collection & analytics, and overall data integration.

Results

Throughout the engagement, the Concord team provided oversight and executed on the following:

> Standardized vendor hardware and software development across the distribution network, including upgrades to WiFi and introducing WiMax infrastructure
> Developed extended network security protocols and threat detection to account for eventual inclusion of up to 2 million additional data producing network devices that would relay information to the NOC
> Designed and developed a data collection solution that enables customers to preemptively anticipate grid component capacity and impending failures
> Created a data filtering and analytics solution that provided operational and business insights to client in realtime

As a result of Concord's efforts, our client is able to systematically deploy new hardware to the field while simultaneously mitigating cyber-security threats and harvesting rich data from newly deployed devices. In turn, the client is able to minimize grid component down-time and proactively determine where and what capacity battery to deploy to the field.

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